Please delete the present Abstract of the Disclosure.

Please add the following new Abstract of the Disclosure:

An integrated modem circuits comprising processor-systems ~~(1)~~ and hardware ~~(2,3)~~ for exchanging signals with another modem circuit <u>at a speed of</u> 1 Mb/s or more ~~are~~ <u>is</u> provided. <u>The integrated modem circuit includes</u> ~~with low cost, accurate, flexible~~ filter software ~~(11)~~ for embodying a digital phase locked loop filter. ~~Said~~ <u>The</u> hardware ~~(2,3) comprises~~ <u>includes</u> fast modules ~~(22,32)~~ for compensating for sample processing. ~~The insight of hardware phase locked loops being expensive, not accurate, inflexible and of software phase locked loops being slow results in the basic idea of the phase locked loop calculations being done in software and the compensations being done in hardware.~~ Sample software ~~(14,15)~~ processes samples <u>by</u> shifting, adding, or ~~deleting)~~ <u>deleting</u> samples of packet signals. ~~Said~~ <u>The</u> hardware ~~(2,3) comprises~~ <u>includes</u> in the transmission path, ~~(2)~~ mappers ~~(21)~~, rotors ~~(22)~~ and inverse Fourier transformators, ~~(23)~~ and in the receiving path, ~~(3)~~ Fourier transformators ~~(33)~~, rotors ~~(32)~~ and demappers ~~(31)~~. Control software ~~(12,13)~~ controls ~~said~~ <u>the</u> rotors ~~(22,32)~~. In ~~software in~~ <u>the</u> processor-system ~~(1)~~ there are initialization steps ~~(101)~~, reading steps ~~(102)~~, detection steps, ~~(104,105,106,111,112,115)~~ executing steps ~~(108,109)~~, adaptation steps ~~(110,116,117)~~, and incrementation steps ~~(114,118)~~.

Please add the following new Abstract of the Disclosure:

An integrated modem circuit comprising processor-systems and hardware for exchanging signals with another modem circuit at a speed of 1 Mb/s or more is provided. The integrated modem circuit includes filter software for embodying a digital phase locked loop filter. The hardware includes fast modules for compensating for sample processing. Sample software processes samples by shifting, adding, or deleting samples of packet signals. The hardware includes in the transmission path, mappers, rotors and inverse Fourier transformators, and in the receiving path, Fourier transformators, rotors and demappers. Control software controls the rotors. In the processor-system there are initialization steps, reading steps, detection steps, executing steps, adaptation steps, and incrementation steps.